

CLAIMS

1. A rubber composition comprising 100 parts by mass of a diene polymer and 20-250 parts by mass of a carbon black as a filler, characterized in that the carbon black has a dibutyl phthalate (DBP) 5 absorption number of 40-180 cm³/100 g, a nitrogen adsorption specific surface area (N₂SA) of 40-300 m²/g, a tint strength (TINT) of 50-150% and a light transmittance of toluene extract of not less than 90% and a relation between the nitrogen adsorption specific surface area and the light transmittance of toluene extract satisfies the following equation 10 (I):

$$0.0283 \times A \times (100-B) \leq 40 \dots \dots \text{ (I)}$$

(wherein A is a nitrogen adsorption specific surface area and B is a light transmittance of toluene extract).

2. A rubber composition according to claim 1, wherein the 15 relation between the nitrogen adsorption specific surface area and the light transmittance of toluene extract satisfies the following equation (II):

$$0.0283 \times A \times (100-B) \leq 20 \dots \dots \text{ (II)}$$

(wherein A and B are the same as mentioned above).

- 20 3. A rubber composition according to claim 2, wherein the relation between the nitrogen adsorption specific surface area and the light transmittance of toluene extract satisfies the following equation (III):

$$0.0283 \times A \times (100-B) \leq 8 \dots \dots \text{ (III)}$$

25 (wherein A and B are the same as mentioned above).

4. A rubber composition according to claim 1, wherein the carbon black has a maximum ultraviolet (UV) absorbance at 330-340 nm of not more than 0.020 and a maximum ultraviolet (UV) absorbance at 260-280 nm of not more than 0.020.

- 30 5. A rubber composition according to claim 1, wherein the carbon black has a weight reduction ratio at 400-530°C of not more than 0.20%.

6. A rubber composition according to claim 1, wherein the

carbon black has an extraction ratio with dichloromethane of not more than 0.12%.

7. A rubber composition according to claim 1, wherein the carbon black has a hydrogen emitting ratio at 2000°C of not less than 5 0.15%.

8. A rubber composition according to claim 7, wherein the carbon black has a hydrogen emitting ratio at 2000°C of not less than 0.18%.

9. A rubber composition according to claim 8, wherein the 10 carbon black has a hydrogen emitting ratio of not less than 0.23%.

10. A tire characterized by using a rubber composition as claimed in any one of claims 1 to 9 in a tread.